

Pergolizzi et al.

Serial No.: 08/479,995

Filed: June 7, 1995

Page 2 [Amendment Under 37 C.F.R. §1.115 (Following Applicants'

December 20, 2002 Request For An Interference And Communication To
Introduce The Request) -- March 13, 2003]

AMEND THE ABOVE-IDENTIFIED APPLICATION AS FOLLOWS:

In The Claims:

Add new claims 532-545 as follows:

-- 532. (NEW) The process of claim 443, wherein said analyte is a DNA sequence, said bridging entity is a single-stranded DNA sequence, and said signalling entities are single-stranded DNA sequences. --

-- 533. (NEW) The process of claim 532, wherein said bridging entity is derived from a filamentous phage. --

-- 534. (NEW) The process of claim 533, wherein said signalling entities are derived from filamentous phages. --

-- 535. (NEW) The process of claim 534, wherein said bridging entity codes for a gene product or fragment thereof, and said forming step comprises either (i) contacting said analyte with said bridging entity to form a first complex and thereafter contacting said first complex with said signalling entities to form said detectable complex or (ii) contacting said bridging entity with said signalling entities to form a first complex and thereafter contacting said first complex with said analyte to form said detectable complex. --

Pergolizzi et al.

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-- 536. (NEW) The process of claim 443, wherein said analyte is a polynucleotide, said one or more nucleic acid sequences or segments of said second portion are repeating low-complexity nucleic acid sequences or segments, and said one or more nucleic acid sequences or segments of said second portion are incapable of hybridizing to the analyte. --

-- 537. (NEW) The process of claim 536, wherein said signal is amplified because the ratio of the signalling entities to the bridging entity exceeds 5. --

-- 538. (NEW) The kit of claim 411, wherein said analyte is a polynucleotide, said one or more nucleic acid sequences or segments of said second portion are repeating low-complexity nucleic acid sequences or segments, and said one or more nucleic acid sequences or segments of said second portion are incapable of hybridizing to the analyte. --

-- 539. (NEW) The kit of claim 538, wherein said signal is amplified because the ratio of the signalling entities to the bridging entity exceeds 5. --

-- 540. (NEW) The process of claim 443, wherein said analyte is a single-stranded DNA sequence fixed to a solid support, said bridging entity comprises non-naturally occurring or artificially modified DNA, said bridging entity first portion comprises a linear single-stranded polynucleotide sequence, said bridging entity first portion is covalently bound to said bridging entity second portion, and said bridging entity second portion is single-stranded and linear and comprises more than one of said nucleic acid sequences or segments. --

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Page 4 [Amendment Under 37 C.F.R. §1.115 (Following Applicants'
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-- 541. (NEW) The process of claim 540, wherein said signalling entities are single-stranded oligo- or polynucleotide sequences, said bridging entity first portion is capable of encoding a gene product or fragment thereof, and the process further comprises one or more washing steps prior to detection. --

-- 542. (NEW) The composition of claim 283, wherein said analyte is a single-stranded DNA sequence fixed to a solid support, said bridging entity comprises non-naturally occurring or artificially modified DNA, said bridging entity first portion comprises a linear single-stranded polynucleotide sequence, said bridging entity first portion is covalently bound to said bridging entity second portion, and said bridging entity second portion is single-stranded and linear and comprises more than one of said nucleic acid sequences or segments. --

-- 543. (NEW) The composition of claim 542, wherein said signalling entities are single-stranded oligo- or polynucleotide sequences and said bridging entity first portion is capable of encoding a gene product or fragment thereof. --

-- 544. (NEW) The kit of claim 411, wherein said analyte is a single-stranded DNA sequence fixed to a solid support, said bridging entity comprises non-naturally occurring or artificially modified DNA, said bridging entity first portion comprises a linear single-stranded polynucleotide sequence, said bridging entity first portion is covalently bound to said bridging entity second portion, and said bridging entity second portion is single-stranded and linear and comprises more than one of said nucleic acid sequences or segments. --

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-- 545. (NEW) The kit of claim 544, wherein said signalling entities are single-stranded oligo- or polynucleotide sequences and said bridging entity first portion is capable of encoding a gene product or fragment thereof. --

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